Lecture 1

Workshop 1

stakeholder analysis.

Hi power/low interest

Hi power/hi interest

Low power/low interest: Support team Low power/hi interest: Project team

Lecture 2:

1. Key project characteristics includes:

Introduce change

They are temporary - they gave a start and end date

Cross functional

Vary in size

All above

2. The value of project management lies in:

Organising and structuring scare resources and managing risk

Not needing to worry about cost and timeframes

They are totally unstructured

Anyone in an organisation can start or stop one

3. The #1 factor that contributes to project failure is:

Technology

Lack of skilled resources

Poor planning

Executive sponsorship

Poor project management

All the above

4. The best methodology / approaches to use for project is:

Prince2

PMBOK

Agile

It depends on the organisation and what best suites the project you're undertaken

5. A project Charter should be created for every project:

Yes

No

6. Which of the following information is typically captured in a Project Management Plan?

Executive Summary

Project costs and benefits / value

Project Milestone

Project team / resources

All above

7. Which of the following is a formal SDLC?

Waterfall

Rainforest

Journey Cycle

All above

8. What is agile:

A set of methodologies based on iterative development where requirements and solutions evolve through collaboration between self-organising cross-functional items

9. What are the key characteristics of Scrum?

A process that allows teams to focus on delivering the highest business value in the shortest time

The business sets the priorities. Our teams self-manage to determine the best way to deliver the highest priority features.

Continued delivery of working software - every two weeks to a months anyone working

All above

10. In which Scrum ceremony does the team provide an update and review activities?

Sprint planning

Sprint initialisation

Sprint Review

Daily stand-ups

Sprint Retrospectives

Tutorial 2

A "process" is a repetitive sequence of tasks and the tasks are known at the outset since it is repetitive.

The sequence of tasks in a "project" is not normally repetitive and may not be known at the outset of the project.

A "process" is generally ongoing and doesn't normally have an end.

A "project" has a beginning and an end (although the beginning and end may not be well-defined when the project starts and the end might be a long time in the future).

Formal Phases: <Initialize, Plan, Execute, Monitor&Control, Close >

Formal Planning activities: Requirements Analysis, Estimate cost, WBS, and PMP document.

Scrum Phases: <Initialize, Sprint Planning, Scrum, Sprint Review/Retrospective, Close >

Sprint Planning activities: Groom Product Backlog, Determine team velocity, select high priority feature level User Stories into Sprint Backlog, and decompose Sprint Backlog User Stories.

Lecture 3

1. Which group of influencing factors have the greatest impact or individuals?

Authority, Money and Penalties

Work challenges and Expertise

2. Project Resources - what is the most important resources?

Time

Scope

Moneys

Team

Myself

3. What is team?

One or more people with individual skill set working next to each other to achieve an outcome.

A collection of people working together who do not necessarily work collectively toward the same goal.

Two or more individuals consciously working together to achieve a common objective.

4. Why do we use teams?

Few individuals possess all the knowledge, skill and abilities needed to accomplish all tasks.

Complementary teamwork skills are one of the most commonly required skills in the work environment.

Substantial benefits to the organisation and to the team members

Shared accountability increases likelihood of success

All above

5. What is a positive sign of an effective team?

No clear role and responsibilities

Commitment to the project outcomes and the other team members

Blame for what goes wrong, no one accepts the responsibility

Team members work alone, rarely sharing information and offering assistance

Lack of support for others

All of the above

Tutorial 3

- In a small start-up, the client and Product Owner may be the same person.

In a large corporation, the client may be a VIP and not give time to the project but delegate responsibility to the Product Owner.

- The scope is expressed as a list of features in the Product Backlog
- The Product Backlog documents every feature the product:

must have,

should have &

would be nice to have?

- Product Milestones indicate a significant feature set.
- How does Scrum express Product Milestones?

Add Milestones to the Product Backlog

- Identify in which phase the software coding happens: The Sprint phase
- Where would you document the minimum features the product increment must have before it can be released

Sprint Backlog lists the minimum features for a chunk of usable product.

- In the daily Stand-up meeting:

What three questions are answered?

What I did yesterday

What I plan to do today

What issues are blocking my progress

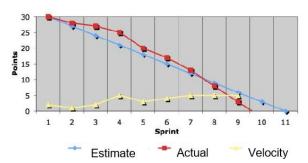
Who talk during the Stand-up meeting?

The development team, which includes the Scrum Master

- How do you monitor the productivity of the Sprint?

For User Stories in the Sprint Backlog:

- Decompose each and re-estimate more carefully
- Will this number of Story Points fit in Sprint?
- Monitor "done" User Stories on Sprint Burndown chart
- Update actual velocity at end of Sprint



- In the Adapt phase, what are the meetings called?
 Sprint planning / Daily Scrum / Sprint Review / Sprint Retrospective
- Who is invited to the end of Sprint Review?

A showcase for a big audience

- Who is invited to the end of Sprint Retrospective?

Reflection, without management overview:

The team includes the Scrum Master

Product owner is often invited

Lecture 4

- 1. Listening: requires concentration and is the process of taking in what your hear and mentally and organising it so it makes sense
- 2. Which activity is NOT part of the process of listening?

Predicting some expected outcome

Receiving

Assigning meaning

Judging

Assessing / Validating

Remembering

3. What some of the challenges to listening?

Physiological limitations

Bias and being judgmental

Boredom or interference from emotions

Cultural differences

Past experiences

Jargon & acronyms

All above

4. Why is it important for a project manager to communicate well?

Read / understand the client

Run a meeting

Communicate (written&orally) thoughts accurately

Influence your environment

All of the above

5. Why are face 2 face (f2f) meeting important?

It is good to sit dow and see people as we are usually so busy

It isn't - i don't like seeing and speaking with people

Because 58% communication is through body language

So that I can really tell them what I am really thinking

All above

6. Resolving conflict is best done through?

Email

Website

Hardcopy

A face to face meeting

Not at all - i don't like conflict

7. External stakeholder includes:

Customer's

Suppliers

Governments / Unions

General Public

Competitors

All above

Tutorial 4

What roles might you play in your project team?

Initiator: offers ideas, solutions, brainstorm, lateral thinker

Information seeker: wants facts

Information giver: describes own experience, offers facts, clarification

Coordinator: combine contribution of others Evaluator: assess quality of contributions

Encourager: praising, accepting, cohesion and warmth Harmonizer: build consensus, humor to neutralize anger

Standard setter: focus on goals, standards

Follower: agreeable

Group observer: provides feedback

What roles are necessary for a high functioning team?

Task Maintenance Destructive

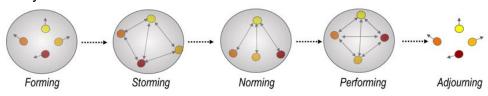
Initiator: Encourager: Blocker

Information seeker:
Information giver:
Coordinator:

Harmonizer:
Standard setter:
Follower:
Recognition seeker
Dominator:
Reasonable
Free rider:
Combination

Evaluator: Group observer: Avoider: Lone wolf:

Team life cycle



Team structure

Controlled centralised

Controlled Decentralised

SWAT Team

Scrum Team

The relationships between team structures and lifecycle models constrains the selection of both.

Lecture 5

1. In what stage of the project management life cycle is the project charter development?

Initiating

Planning

Monitoring and controlling

Executing

Closing

2. Which of the following is not a part of the project schedule?

Project timeline

Tasks

Task owners

Stakeholder

Milestone

3. Which of the following is incorrect?

A task needing resources that another task uses create a task dependency

A task needing a work product created by another task creates a task dependency

In a Start-to-Finish successor must start before the predecessor can finish

If task B depends on task A, task B the successor and task A is the predecessor

An unconstrained task can start at anytime

4. Which one of the following is incorrect?

A successor task depends on a predecessor task

An unconstrained task does not have any successor tasks

The software development life cycle (SDLC) model can be useful for developing the WBS

A resource constraint could result in a task dependency

A project schedule includes milestones

5.

A project planned to finish in 12 months is estimated to cost \$100,000. At the end of the third month, the Project Manager computes the following: Planned Value = 15,000; Earned Value = 20,000; Actual Costs = 35,000. Which of the following is correct?

Schedule Variance is 5000 dollars

Schedule Variance is 20,000 dollars

Cost Variance is 15,000 dollars

Cost Variance is 20,000 dollars

Cost Variance is -20,000 dollars

Tutorial 5

What steps are involved in developing a project schedule?
 Identify tasks (breakdown to tasks (WBS))
 Identify dependencies (tast network)

identity dependencies (tast network)

Estimate duration & resources (staff, hardware, artefacts)

Construct schedule(allocate dates, resources)

- How to plan the schedule
 - 1. Work breakdown structure
 - 2. PERT chart
 - 3. Gantt chart
- Monitoring and Control

PV

ΕV

AC

- Scrum project scheduling
 - 1. Product Backlog with milestone
 - 2. Sprint backlog on Kanban board
 - 3. Burndown Chart

Lecture 6

1. Which of the following is true?

The critical path is the series of activities within the network with zero total float

The critical path is the path with the most number of tasks.

The critical path is the list of activities that have critical risks associated with them.

The critical path is the path with the most number of dependencies.

A critical path is a path that has at least one activity with a zero free float.

2. Which of the following is incorrect?

Software cost estimation is challenging because no person can predict what could go wrong in a project

There is no exact science to software cost estimation

Knowledge of previous projects that have been completed is valuable for improving estimation accuracy

Task decomposition is helps in getting more accurate estimates

Delaying estimation normally results in more accurate estimates, therefore estimation should be delayed as much as possible

3. Which of the following is incorrect?

Algorithm cost estimation is based on a model development using historical data?

Function Points for a software depends on the programming language used.

Function Points measure the size of the solution instead of the size of the problem.

Lines of code is a popular metric for measuring software size because it is an intuitive measure Function Points can be estimated early in analysis and design.

Tutorial 6

- User Stories

 As a <user>, I want < goal> so that < reason>

 Product Backlog

 Features listed in client priority order
 Release milestones annotated to list

 Sprint Backlog

 Features selected for this iteration
 Visual Kanban board

 Burn Down Chart

 Measure the features 100% done
- User Story: Product owner has a conversation with the development to understand requirement.
- Feature User story product capabilities / owner perspective
- Epic User Story New business services / a product
- Estimation Strategy Overview

Top down strategy: Use cost of a previous similar project, size and effort Source Lines of Code, Function Points, Cocomo

Bottom up strategy: Estimate individual work items and sum WBS, Agile Story Points and Velocity

Lecture 7

1. Which of the following related to agile estimation is incorrect?

Estimation by analogy is widely used practice is agile estimation

Product owner does not have a role in agile estimation

It is common for the whole team to be involved in agile estimation

Agile teams validates that their estimates are internally consistent among stories as they progress with Sprints

Team velocity plays an important role in agile estimation

2. Which of the following related to risks is incorrect?

A risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on the project objects

Software quality related issues can be classified as a project risk

Risk is a result of uncertainty but not every uncertainty is a risk

Business risks are normally not in direct control of the project team

Risk analysis deal with computing each identified risk's probability and impact

Tutorial 7

- Define Project Risk: The effect (positive and negative) of uncertainty on project objectives
- In what PM phase does risk management start?

Initiation phase

- Risk activity flow: Identify, Analyze, respond, monitor and control
- Risk Register: trigger, consequence, objective, owner, benchmark, probability & time

Lecture 8

- 1. The consequence of a failure to identify all significant risks that an organisation faces is likely to be:
 - 1. Business objectives may not be achieved.
 - 2. Operating costs may increase.
 - 3. Opportunities may be overlooked.
 - 4. Risks will be better identified in future.

Which of the above is/are correct?

1 and 2

1 only

1,3 and 4

1,2 and 3

3 only

2. Which of the following would you regard as a high quality product?

A product that meets client requirements

A product that has passed 100% of the test case

A product that is reliable and efficient

A product that is easy to use

A product that is easy to maintain and extend

All above

3. Which of the following statements related to software quality is incorrect?

Quality must be built into the software from the beginning

Maintainability is an internal quality attribute

Usability is an external quality attribute

The quality of the process does not have any impact on the quality of the product

Ensuring product quality typically involves measuring and assessing the product and processes

Tutorial 8

- 1. What are the advantages of moving a software process from "repeatable" to 'defined"?
 - a) A defined software has measurement and control process in place to encourage good management of the project
 - b) Less costly on the project team
 - c) It enables less experienced managers to perform as well as highly experienced managers

- d) Good for team morale
- 2. What are the disadvantages of(same as above)?
 - a) It is difficult to manage because there are fewer guidelines
 - b) Expensive
 - c) It does not provide opportunities for junior managers to gain skills
 - d) Can be problematic for team morale and interpersonal relationships

Answer: b and d.

- 3. What is the role of AQ in agile?
 - a) After development there is a separate testing done by the agile team in a number of sprints
 - b) As there us fast development cycles there is no time for testing
 - c) Agile aims to adapt to changes quickly and minimize time so there is no testing
 - d) Testing is done in each sprint
 - e) Continuous integration between development and testing

Answer: d and e

4. Write QA Requirements as User Stories

As the agile scrum team: We want a Quality Plan, so that our Sprint has a strong Quality Management focus

As a quality assurance Design team: We want a QA checklist, so that key categories and attributes are assessed at defined times

As the system administrator: I want a password policy guideline, so that our application has helpful processes; I want a password policy guideline, so that our application has helpful processes

Lecture 9

1. The procurement process is typically conducted with the issuing of a Request for X (RFx)

True

False

Answer: True

2. The 3 stages of procurement are:

Plan, manage and hope it works

Plan, source and manage

Source, manage and contract

All of the above

Answer: Plan, source and manage

- 3. What would you do? You are the CEO of a medium sized company and are looking to outsource a majority of a large project to get access to critical skills at a cheaper price.
 - a) I would outsource to any company that provided the best deal.
 - b) I would not outsource anything and would do higher people to do all activities
 - c) I would consider all items and risks and only outsource items that had no impact to my business
 - d) I would get someone else to make the decision in case it all went I had someone to fire Answer: C
- 4. Negatives of outsourcing include:
 - a) Loss of control
 - b) Security issues
 - c) Employees feel threatened

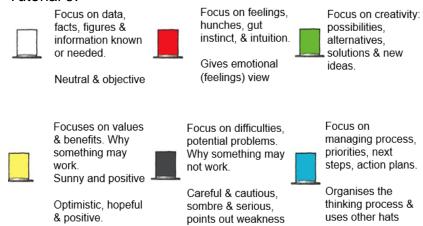
- d) Additional effort and cost to engage and manage
- e) Time zone, cultural & language challenges
- f) Location stability Political, Economic, Religious
- g) Ethical standards environment, slave / child labour
- h) All above Answer: h
- 5. Contracts are the one source of truth for all activities that are to delivered by the external parties.

Yes

No

Sometimes Answer: Yes

Tutorial 9:



Lecture 10:

1. Which one of the following is an external quality attributes?

Testability

Probability

Usability

Modularity

Reusability

Answer: usability

2. Which one of the items below is not a part of a change record?

The change made

The repository it is stored in

Who made the change

The relationale for the change

When it was implemented

Answer: The repository it is stored in